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Xcel Energy	Data Request No.	3-5
Docket No.:	EL25-020	
Response To:	South Dakota Public Utilities Commission	
Requestor:	Eric Paulson	
Date Received:	October 28, 2025	

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Question:

Refer to the response to DR2-9. How is the actual total amount of energy saved calculated?

Response:

The Home Energy Insights (HEI) program uses baseline energy consumption, energy usage over the evaluation period time, and a robust savings methodology to determine the amount of energy saved per household. The energy saved will be calculated by Oracle, our HEI implementer, who will use an experimental design with a Randomized Control Trial for Home Energy Report program measurement. This practice is a well-established, industry-standard methodology, as noted through independent, third-party program evaluations in which households are randomly assigned to either a treatment group or control group and the outcomes of the two groups are compared, resulting in unbiased program savings. Randomization eliminates pre-existing differences that are both observable differences (e.g., energy use or floor area of households) as well as differences that are typically unobservable (e.g., attitudes regarding energy conservation, number of occupants, expected future energy use, and occupant age) unless surveyed. An opt-out program design is used to reach the maximum number of households possible. Throughout program implementation, Oracle's analytics team re-forecasts savings and measures savings progress.

Two reference documents for further explanation include Oracle's *Evaluation, Measurement, and Verification (EM&V) Data Extract Randomized Controlled Trials* (2019) [Attachment A] and the State & Local Energy Efficiency Action Network's [\*Evaluation, Measurement, and Verification \(EM&V\) of Residential Behavior-Based Energy Efficiency Programs: Issues and Recommendations\*](#)<sup>1</sup> (May 2012).

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<sup>1</sup> [https://www.energy.gov/sites/default/files/2021-08/emv\\_behaviorbased\\_eepprograms.pdf](https://www.energy.gov/sites/default/files/2021-08/emv_behaviorbased_eepprograms.pdf)

For examples of evaluated savings and realization rates documenting impact similar to what we anticipate seeing for Xcel Energy's South Dakota service territory, please see attached Evaluation, Measurement & Verification reports from: Until and Liberty Utilities, Potomac Edison and Duquesne Light Company. [Attachments B, C & D.]

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